

**WHAT IS CLAIMED IS:**

1           1. Footwear incorporating an illumination system, said footwear comprising:  
2           a sole;  
3           a translucent sole insert including at least one illumination device capable of  
4 providing externally visible light;  
5           a control processor capable of altering the visual characteristics of said externally  
6 visible light provided by said illumination device; and,  
7           a power source for providing power to said illumination device and said control  
8 processor.

1           2. The footwear of claim 1 wherein said illumination device is a light emitting diode  
2 (“LED”).

1           3. The footwear of claim 2 wherein said power source is a battery.

1           4. The footwear of claim 3 wherein said sole further includes mirror material located  
2 behind said translucent sole insert for reflecting said externally visual light through said  
3 translucent sole insert.

1           5. The footwear of claim 3 further including an effect device in said translucent sole  
2 insert.

1           6. Footwear incorporating an illumination system, said footwear comprising:  
2           a sole;  
3           a U-shaped translucent sole insert including a sole illumination device capable of  
4 providing externally visible light;  
5           a heel;  
6           a translucent heel insert including at least one heel illumination device capable of  
7 providing externally visible light;  
8           a control processor capable of altering the visual characteristics of said externally  
9 visible light provided by said sole illumination device and said heel illumination device; and,

10 a power source for providing power to said sole illumination device, said heel  
11 illumination device and said control processor.

1 7. The footwear of claim 6 wherein said illumination device is a light emitting diode  
2 (“LED”).

1 8. The footwear of claim 7 wherein said power source is a battery.

1 9. The footwear of claim 8 wherein said sole further includes mirror material located  
2 behind said translucent sole insert for reflecting said externally visual light through said  
3 translucent sole insert.

1 10. The footwear of claim 9 wherein said heel further includes mirror material  
2 located behind said translucent heel insert for reflecting said externally visual light through  
3 said translucent heel insert.

1 11. The footwear of claim 8 further including an effect device in said translucent sole  
2 insert.

1 12. Footwear incorporating an audio/visual system, said footwear comprising:  
2 a sole;  
3 a translucent sole insert including at least one illumination device capable of  
4 providing externally visible light;

5 a speaker;

6 an audio/visual control processor capable of altering the visual characteristics of said  
7 externally visible light provided by said illumination device, and, capable of generating an  
8 audio signal displayed by said speaker; and,

9 a power source for providing power to said illumination and said audio/visual control  
10 processor.

1           13. The footwear of claim 12 further comprising a pressure switch located in said  
2 sole for activating said audio signal when pressure is exerted on said pressure switch by a  
3 wearer of said footwear.

1           14. The footwear of claim 13 wherein said audio/visual control processor is  
2 comprised of a microprocessor and programmable read-memory ("PROM").

1           15. Footwear incorporating an interactive illumination system, said footwear  
2 comprising:

3           a sole;

4           a translucent sole insert including at least one illumination device capable of  
5 providing externally visible light;

6           at least one sensor located in said sole for sensing information about the physical state  
7 of a wearer;

8           a sensor control unit for processing said information about the physical state of said  
9 wearer;

10          a control processor capable of altering the visual characteristics of said externally  
11 visible light provided by said illumination device in response to the physical state of said  
12 wearer; and,

13          a power source for providing power to said illumination device, sensor control unit  
14 and said control processor.

1           16. The footwear of claim 15 wherein said sensor is a pulse monitor.

1           17. The footwear of claim 15 wherein said sensor is a temperature monitor.

1           18. The footwear of claim 15 further comprising:

2           a heel;

3           a translucent heel insert including at least one illumination device capable of  
4 providing externally visible light;

5           at least one sensor located in said heel for sensing information about the physical state  
6   of a wearer.

1           19. The footwear of claim 18 wherein said sensor is a pulse monitor.

1           20. The footwear of claim 18 wherein said sensor is a temperature monitor.